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MEASURING THE ECONOMIC PERFORMANCE OF A NEW ENVIRONMENTAL PROTECTION MODEL

I. INTRODUCTION

Solving environmental problems while maintaining economic competitiveness has always been a major challenge facing U.S. industry and government. While traditional programs have been successful at addressing many serious and obvious risks, alternate strategies are needed to further advance environmental and human health protection.[1] Recently, the Environmental Results Program (ERP) model has gained national support as an effective tool for improving overall environmental compliance in business and industry while using less resources. A newly formed national consortium of states described the model in this way:

> "ERP is an innovative and cost-effective approach to improving the environmental performance of business sectors or other groups characterized by hundreds or thousands of small pollution sources. Although individual facilities within these groups may only release small amounts of pollution, their aggregate impact can be significant. ERP provides a system and corresponding tools to help states manage these numerous small pollution sources that have potentially large cumulative impacts."[2]

Fundamentally, all ERP initiatives incorporate three basic components: 1) facility self-certification, 2) technical/compliance assistance, and 3) performance measurement using statistical analysis. A combined regulatory and non-regulatory approach is used to administer the program, typically in small business industry sectors with known human health and environmental risks. In Rhode Island, for example, there are nearly 370 licensed shops in the automotive refinishing sector; most shops employ fewer than 10 workers. Operations found in these shops are considered high risk due to the use of hazardous chemicals and exposure to toxic metals such as lead. Despite these considerations, the state environmental protection agency cannot regularly inspect each individual shop as it has been historically understaffed. In 2003, a statewide auto body ERP was implemented as a solution to this problem and statistically significant improvements in overall compliance with environmental, health and safety regulations were observed.[3] Instead of inspecting all 370 facilities on an annual basis, the state agency relies on ERP's statistical approach which allows for random inspections of a small number of facilities every three years to demonstrate regulatory compliance.

While 18 states in eight of the U.S. Environmental Protection Agency's (EPA) 10 regions have developed or are implementing at least one ERP, and more than 30 statistically significant improvements in compliance performance have been found across 5 sectors/groups of industry,[4] data on the economic viability of this environmental policy choice is lacking. The objective of this paper is to analyze the costs and benefits associated with administering this program in a highly regulated industry sector which has recently become subject to additional stringent facility inspection requirements under the U.S. Energy Policy Act of 2005.